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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

45945

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Signature _____

Typed or printed name _____

Application Number

10/691,644

Filed

October 24, 2003

First Named Inventor

Ming-Goo Kim

Art Unit

2117

Examiner

Steve N. Nguyen

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐

applicant/inventor.

☐

assignee of record of the entire interest.

See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

☒

attorney or agent of record.

Registration number 46,300

☐

attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34 _____

Signature

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Telephone number

April 9, 2009

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☒

*Total of 3 forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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PATENT
Case Docket No.: 45945

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	:	
	:	
Ming-Goo Kim et al.	:	Group Art Unit: 2117
	:	
Serial No.: 10/691,644	:	Examiner: Steve N. Nguyen
	:	
Filed: October 24, 2003	:	Confirmation No.: 7618
	:	
For: METHOD AND APPARATUS FOR	:	
CONTROLLING HARQ IN A	:	
MOBILE COMMUNICATION	:	
SYSTEM	:	

**ARGUMENTS FOR CONSIDERATION FILED CONCURRENTLY
WITH PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This communication is submitted in response to the final office action of March 12, 2009.
Applicants respectfully request consideration of the following:

Remarks/Arguments:

In the final Office Action mailed March 12, 2009, the Examiner rejects claims 1-4, 6-16 and 22-25 under 35 U.S.C. 103(a) as allegedly being unpatentable over Seidel et al. (U.S. Patent No. 6,658,005) in view of Fong et al. (U.S. Patent No. 6,760,860). Applicants respectfully traverse this rejection.

Claim Rejections – 35 U.S.C. § 112, 2nd paragraph

Claim 1 stands rejected under 35 U.S.C. §112, second paragraph, as allegedly being incomplete for omitting essential elements, such omission amounting to a gap between the elements. Applicants respectfully submit that claim 1 recites all essential elements.

It is respectfully reminded that when analyzing the enabled scope of a claim, the teachings of the specification must not be ignored as the claims are to be given their broadest reasonable interpretation in light of the specification. “That claims are interpreted in light of the specification does not mean that everything in the specification must be read into the claims.” *Raytheon Co. v. Roper Corp.*, 724 F.2d 951, 957, 220 USPQ 592, 597 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 835 (1984). (See MPEP §2164.08.) Accordingly, Applicants are not required to claim every detail that describes the relationship between the claimed elements.

Further, the test for definiteness under 35 U.S.C. 112, second paragraph, is whether “those skilled in the art would understand what is claimed when the claim is read in light of the specification.” *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576, 1 USPQ2d 1081, 1088 (Fed. Cir. 1986). (See MPEP §2173.02.)

Here, Applicants respectfully submit that the meaning and scope of “ACK/NAK delay” and “1 slot” are clear when read in light of the specification. Accordingly, Applicants respectfully submit that there is no omission of essential elements amounting to gaps in the elements as alleged in the Office Action. Therefore, Applicants respectfully request that the rejection under 35 U.S.C. §112, second paragraph, be withdrawn.

Claims 22 and 23 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner alleges that the term “time slot” is a relative term which renders the claim indefinite. Applicants respectfully disagree with the Examiner’s analysis.

The Examiner should note that independent claim 1, which claims 22 and 23 depend on, recites that the two HARQ state machines are selectively enabled based on a number of acknowledgement/negative-acknowledgement (ACK/NAK) processing delay time slots. Furthermore, lines 21-23 in the specification of the instant application disclose that a possible

ACK/NACK Delay supported by the mobile station is 1 slot (= 1.25 msec) or 2 slots (2.5 msec), and that the possible number of ARQ channels is 2, 3 or 4. Once again, when analyzing the enabled scope of a claim, the teachings of the specification must not be ignored as the claims are to be given their broadest reasonable interpretation in light of the specification. Accordingly, Applicants respectfully request that the Examiner withdraw the 35 U.S.C. § 112, second paragraph rejection.

Claim Rejections – 35 U.S.C. § 103(a)

The Examiner rejects claims 1-4, 6-16 and 22-25 under 35 U.S.C. 103(a) as allegedly being unpatentable over Seidel et al. (U.S. Patent No. 6,658,005) in view of Fong et al. (U.S. Patent No. 6,760,860). Applicants respectfully traverse this rejection.

Exemplary embodiments of Applicants' claimed invention provide methods and devices comprising unique combinations of method steps and features, respectively, including, *inter alia*, an apparatus for use in a mobile communication system that simultaneously transmits a control message over a control channel and data over a data channel, wherein the apparatus supports hybrid automatic repeat request (HARQ), the apparatus comprising: a physical layer for receiving the control message and the data from the control channel and the data channel respectively and for decoding the received control message and data; a physical layer's HARQ controller for processing a result of the decoding of at least one of the received control message and data and for controlling the physical layer according to a result of the processing, the physical layer's HARQ controller comprising: two HARQ state machines for receiving state information from the physical layer and determining a state transition to next state, wherein the two HARQ state machines are selectively enabled based on a number of acknowledgement/negative-acknowledgement (ACK/NAK) processing delay time slots (see Applicants' independent claim 1).

Neither Seidel et al. nor Fong et al. alone or in combination disclose, teach or suggest such unique combinations of features or method steps.

Regarding claim 1, the Examiner admits that Seidel et al. and Fong et al. fail to disclose two HARQ state machines for receiving state information from the physical layer and determining a state transition to next state. However, the Examiner nevertheless alleges that this modification would have been obvious to one of ordinary skill in the art, at the time the invention was made, without presenting any evidence to support the allegation.

The Examiner alleges that “it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the actions of Seidel above using state machines such as the one shown in Fig. 5.” (See Non-final Office Action mailed on November 7, 2008, pg. 6, second-third paragraph.) While it is unclear which Fig. 5 is being referenced in the Office Action, neither Fig. 5 of Seidel et al. nor Fong et al. show, teach, or suggest a HARQ state machine as alleged by the Examiner. To suggest that one would have been motivated to modify the combination of Seidel et al. and Fong et al. to include at least two HARQ state machines just because “Seidel could have been modeled using state diagrams” (See Non-final Office Action mailed on November 7, 2008, pg. 6, second-third paragraph) when both Seidel et al. and Fong et al. are completely silent on the issue is an improper and unsupported conclusion.

The courts have said “[r]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR*, 550 U.S. at ___, 82 USPQ2d at 1396 quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). (See MPEP §2143.01(III).) In the present case, while the Office has attempted to provide a rational to support the legal conclusion that it would have been obvious to modify the combination of Seidel et al. and Fong et al. with the two HARQ state machines as claimed, the Examiner has failed to present any evidence to support the rational or the conclusion (i.e., neither Seidel et al. nor Fong et al. teach or suggest such a feature). Accordingly, Applicants respectfully submit that the rejection to at least independent claim 1 is fundamentally flawed and has failed to present a *prima facie* case of obviousness.

Moreover, claim 1, in part recites two HARQ state machines which are selectively enabled based on a number of ACK/NAK processing delay time slots. Seidel et al. and Fong et al., whether taken alone or in combination, fail to teach or suggest such features.

Exemplary embodiments of the present invention disclose that if the number of time slots is 1 time slot, an HARQ state machine is enabled, and outputs the next state signals. If the

number of time slots is 2 time slots, two HARQ state machines are enabled, and output corresponding state information respectively. If a decoding operation of a K^{th} packet data control channel is completed when an ACK/NAK processing delay is 2 time slots, a first HARQ state machine is enabled and outputs corresponding state information. If a decoding operation of a $(K+1)^{\text{th}}$ packet data control channel is completed, a second HARQ state machine is enabled and outputs corresponding state information. That is, the HARQ state machines are enabled selectively.

These features of the claimed invention produce distinguishable effects of using two HARQ state machines and one turbo decoder for supporting an N-channel HARQ. This point bring substantive gaps between the claimed invention and prior arts that use N-HARQ state machines and N-turbo decoder for supporting an N-channel HARQ.

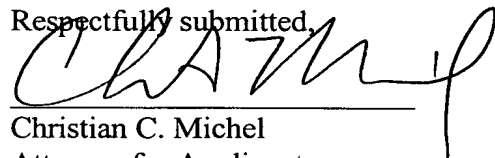
Accordingly, Applicants respectfully submit that independent claim 1 is distinguishable over Seidel et al. and Fong et al., whether taken alone or in combination, and therefore respectfully request that the rejection under 35 U.S.C. §103(a) be withdrawn.

Claims 2-4, 6-16 and 22-25 depend, directly or indirectly, from claim 1; thereby incorporating all of the features of claim 1. Accordingly, Applicants respectfully submit that claims 2-4 and 6-16 are allowable for at least the reasons given above by virtue of their dependency to independent claim 1. Hence, Applicants respectfully request that the rejection under 35 U.S.C. §103(a) be withdrawn.

Accordingly, neither Seidel et al. nor Fong et al., alone or in combination, discloses, teaches or suggests the features of claims 1-4, 6-16 and 22-25 and Applicants, therefore, request withdrawal of the rejection.

In view of the above, it is believed that there is at least one or more errors or omissions in the Examiner's rejections.

Respectfully submitted,



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Dated: April 9, 2009